



Form 1449		
ATTY DOCKET NO. 94-00	SERIAL NO. 10,081,885	FILING DATE 2/20/02
APPLICANT Kaufman		GROUP 145 1694

U.S. PATENT DOCUMENTS

Exmr. Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
mt	A1	6,057,423	05/02/00	Brenner et al.	530	326	
mt	A2	5,985,846	11/16/99	Kochanek et al.	514	44	
mt	A3	5,863,743	01/26/99	Campbell et al.	435	7.21	RECEIVED
mt	A4	5,780,244	07/14/98	Engvall et al.	435	7.21	NOV 01
mt	A5	5,561,047	10/01/96	Shattil	435	7.21	TECH CENTER
mt	A6	5,310,875	05/10/94	Tamura et al.	530	324	800 2900

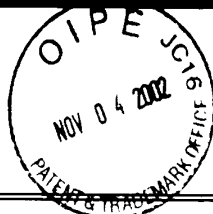
FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes/No
mt	B1	WO 00/20582	13/04/00	PCT	C12N 15/12		

OTHER PRIOR ART (including Author, Title, Date, Pertinent Pages, etc.)

mt	C1		Acsadi, G. et al., "Dystrophin expression in muscles of <i>mdx</i> mice after adenovirus-mediated <i>in vivo</i> gene transfer." (Jan. 1996) <i>Human Gene Therapy</i> 7:129-140
	C2		Amalfitano, A. and Chamberlain, J.S., "The <i>mdx</i> -amplification-resistant mutation system assay, a simple and rapid polymerase chain reaction-based detection of the <i>mdx</i> allele." (1996) <i>Muscle & Nerve</i> 19:1549-1553
	C3		Belkin, A.M. et al., "β1D integrin displaces the β1A isoform in striated muscles: localization at junctional structures and signaling potential in nonmuscle cells." (1996) <i>J. Cell. Biol.</i> 132:211-216
	C4		Belkin, A.M. et al., "Muscle β1D integrin reinforces the cytoskeleton-matrix link: modulation of integrin adhesive function by alternative splicing." (1997) <i>J. Cell Biol.</i> 139:1583-1595
	C5		Bulfield, O. et al., "X chromosome-linked muscular dystrophy (<i>mdx</i>) in the mouse." (1984) <i>Proc. Natl. Acad. Sci. USA</i> 81:1189-1192
	C6		Burkin, D.J. et al., "A functional role for specific spliced variants of the α7β1 integrin in acetylcholine receptor clustering." (1998) <i>J. Cell Biol.</i> 143:1067-1075
mt	C7		Burkin, D.J. et al., "Laminin and α7β1 integrin regulate agrin-induced clustering of acetylcholine receptors." (2000) <i>J. Cell Sci.</i> 113:2877-2886

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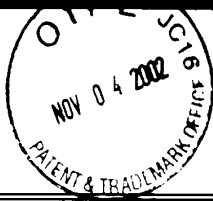


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mt	Ce	Burkin, D.J. and Kaufman, S.J., "The $\alpha 7 \beta 1$ integrin in muscle development and disease," (April 1999) <i>Cell Tissue Res.</i> 296 :183-190
mt	Cf	Burkin, D.J. et al., "Enhanced expression of the $\alpha 7 \beta 1$ integrin reduces muscular dystrophy and restores viability in dystrophic mice," (March 2001) <i>J. Cell Biol.</i> 152 (6):1207-1218
mt	Cg	Campbell, K.P., "Three muscular dystrophies: loss of cytoskeleton-extracellular matrix linkage," (1995) <i>Cell</i> 80 :675-679
mt	Ch	Campeau, P. et al., "Transfection of large plasmids in primary human myoblasts," (2001) <i>Gene Therapy</i> 8 :1387-1394
mt	Ch	Cohn, R.D. et al., "Secondary reduction of $\alpha 7 \beta 1$ integrin laminin $\alpha 2$ deficient congenital muscular dystrophy supports an additional transmembrane link in skeletal muscle," (1999) <i>Journal of the Neurological Sciences</i> 163 :140-152
mt	Ch	Cordier et al. (2000) "Rescue of skeletal muscles of γ -Sarcoglycan-deficient mice with adeno-associated virus-mediated gene transfer," <i>Mol. Ther.</i> 1 :119-129
mt	Ch	Deconinck, A.E. et al., "Postsynaptic abnormalities at the neuromuscular junctions of utrophin-deficient mice," (1997) <i>J. Cell Biol.</i> 136 :883-894
mt	Ch	Deconinck, A.E. et al., "Utrophin-dystrophin deficient mice as a model for Duchenne muscular dystrophy," (1997) <i>Cell</i> 90 :717-727
mt	Ch	Denetclaw, W.F. Jr. et al., "Myotubes from transgenic <i>mdx</i> mice expressing full-length dystrophin show normal calcium regulation," (1994) <i>Mol. Biol. Cell.</i> 5 :1159-1167
mt	Ch	DiMario, J.X. et al., "Fiber regeneration is not persistent in dystrophic (<i>mdx</i>) mouse skeletal muscle," (1991) <i>Dev. Biol.</i> 148 :314-321
mt	Ch	Donoviel, D.B. et al., "Analysis of muscle creatine kinase gene regulatory elements in skeletal and cardiac muscles of transgenic mice," (1996) <i>Mol. Cell. Biol.</i> 16 (4):1649-1658
mt	Ch	Ebihara, S. et al., "Differential effects of dystrophin and utrophin gene transfer in immunocompetent muscular dystrophy," (September 2000) <i>Physiological Genomics</i> 3 :133-144
mt	Ch	Engvall, E., "Muscle cell adhesion and muscular dystrophy," (March 2000) <i>FASEB J.</i> 14 (4):A799[Abstract]
mt	Ch	Fujii et al., "Targeted and stable gene delivery into muscle cells by a two-step transfer," (2000) <i>Biochem. Biophys. Res. Commun.</i> 275 :931-935

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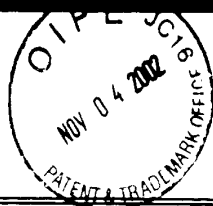
mH	C22	George-Weinstein, M. et al., "In vitro and in vivo expression of $\alpha 7$ integrin and desmin define the primary and secondary myogenic lineages," (1993) <i>Developmental Biology</i> 156 :209-229
mH	C23	Gilbert, R. et al., "Efficient utrophin expression following adenovirus gene transfer in dystrophic muscle," (1998) <i>Biochem. & Biophys. Res. Communications</i> 242 :244-247
mH	C24	Grady, R.M. et al., "Subtle neuromuscular defects in utrophin-deficient mice," (1997) <i>J. Cell. Biol.</i> 136 (4):871-882
mH	C25	Grady, R.M. et al., "Skeletal and cardiac myopathies in mice lacking utrophin and dystrophin: a model for Duchenne muscular dystrophy," (1997) <i>Cell</i> 90 :729-738
mH	C26	Grady, R.M. et al., "Role for α -dystrobrevin in the pathogenesis of dystrophin-dependent muscular dystrophies," (1999) <i>Nat. Cell Biol.</i> 1 :215-220
mH	C27	Gussoni, E. et al., "Dystrophin expression in the <i>mdx</i> mouse restored by stem cell transplantation," (Sept. 1999) <i>Nature</i> 401 :390-394
mH	C28	Hayashi, Y.K. et al., "Abnormal localization of laminin subunits in muscular dystrophies," (1993) <i>J. Neurol. Sci.</i> 119 :53-64
mH	C29	Hayashi, Y.K. et al., "Mutations in the integrin $\alpha 7$ gene cause congenital myopathy," (May 1998) <i>Nature Genetics</i> 19 :94-97
mH	C30	Hodges, B.L. and Kaufman, S.J., "Developmental regulation and functional significance of alternative splicing of NCAM and $\alpha 7 \beta 1$ integrin in skeletal muscle," (1996) <i>Basic Appl. Myology</i> 6 :437-446
mH	C31	Hodges, B.L. et al., "Altered expression of the $\alpha 7 \beta 1$ integrin in human and murine muscular dystrophies," (1997) <i>J. Cell Sci.</i> 110 :2873-2881
mH	C32	Jaynes, J.B. et al., "Transcriptional regulation of the muscle creatine kinase gene and related expression in transfected mouse myoblasts," (1986) <i>Mol. Cell. Biol.</i> 6 :2855-2864
mH	C33	Johnson, J.E. et al., "Muscle creatine kinase sequence elements regulating skeletal and cardiac muscle expression in transgenic mice," (1989) <i>Mol. Cell Biol.</i> 9 :3393-3399
mH	C34	Kim, Y.Y. et al., "Cellular localization of $\alpha 3 \beta 1$ integrin isoforms in association with myofibrillogenesis during cardiac myocyte development in culture," (1999) <i>Cell Adhesion and Comm.</i> 7 (2):85-97
mH	C35	Kwon, M.S. et al., "Calreticulin couples calcium release and calcium influx in integrin-mediated calcium signaling," (2000) <i>Mol. Cell Biol.</i> 11 :1433-1443
mH	C36	Law, D.J. et al., "Talin, vinculin and DRP (utrophin) concentrations are increased at the <i>mdx</i> myotendinous junctions following onset of necrosis," (1994) <i>J. Cell Sci.</i> 107 :1477-1483

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APPLICANT Kaufman		GROUP 1015 1011

mt	C37	Lee, H.C. et al., "Remission in models of type 1 diabetes by gene therapy using a single-chain insulin analogue," (2000) <i>Nature</i> 408 :483-492
mt	C38	Lim, L.E. and Campbell, K.P., "The sarcoglycan complex in limb-girdle muscular dystrophy," (1998) <i>Curr. Opin. Neurol.</i> 11 :443-452
mt	C39	Matsumura, K. et al., "Association of dystrophin-related protein with dystrophin-associated proteins in <i>mdx</i> mouse muscle," (1992) <i>Nature</i> 360 :588-591
mt	C40	Matsumura, K. and Campbell, K.P., "Dystrophin-glycoprotein complex: its role in the molecular pathogenesis of muscular dystrophies," (1994) <i>Muscle Nerve</i> 17 :2-15
mt	C41	Mayer, U. et al., "Absence of integrin $\alpha 7$ causes a novel form of muscular dystrophy," (Nov. 1997), <i>Nature Genetics</i> 17 :318-323
mt	C42	Miosge, N. et al., "Organization of the myotendinous junction is dependent on the presence of $\alpha 7 \beta 1$ integrin," (Dec. 1999) <i>Laboratory Investigation</i> 79 (12):1591-1599
mt	C43	Monaco, A.P. et al., "Isolation of candidate cDNAs for portions of the Duchenne muscular dystrophy gene," (1986) <i>Nature</i> 323 :646-650
mt	C44	Muzny, D.M. et al., GenBank Accession No. AC009799 (March 2001) "Homo sapiens 12 BAC RP11-644F5"
mt	C45	Pons, F. et al., "Does utrophin expression in muscles of <i>mdx</i> mice during postnatal development functionally compensate for dystrophin deficiency," (1994) <i>J. Neurol. Sci.</i> 122 :162-170
mt	C46	Rafael, J.A. et al., "Skeletal muscle-specific expression of a utrophin transgene rescues utrophin-dystrophin deficient mice," (1998) <i>Nat. Gen.</i> 19 :79-82
mt	C47	Rafael, J.A. et al., "Dystrophin and utrophin influence fiber type composition and post-synaptic membrane structure," (2000) <i>Hum. Mol. Genet.</i> 9 :1357-1367
mt	C48	Ragot et al., "Efficient adenovirus-mediated transfer of a human minidystrophin gene to skeletal muscle of <i>mdx</i> mice," (1993) <i>Nature</i> 361 :647
mt	C49	Saher, G. and Hildt, E., "Activation of c-Raf-1 kinase signal transduction pathway in α -integrin-deficient mice," (Sept. 1999) <i>J. Biol. Chem.</i> 274 (39):27651-27657
mt	C50	Shield, M.A. et al., "E-box sites and a proximal regulatory region of the muscle creatine kinase gene differentially regulate expression in diverse skeletal muscles and cardiac muscle of transgenic mice," (1996) <i>Mol. Cell. Biol.</i> 16 (9):5058-5068
mt	C51	Sicinski, P. et al., "The molecular basis of muscular dystrophy in the <i>mdx</i> mouse: A point mutation," (1989) <i>Science</i> 244 :1578-1580

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int	C52	Song, W.K. et al., "Expression of α - integrin cytoplasmic domains during skeletal muscle development: alternate forms, conformational change, and homologies with serine threonine kinases and tyrosine phosphatases," (1993) <i>J. Cell Sci.</i> 106 :1139-1152
int	C53	Song, W.K. et al., "H36- α 7 is a novel integrin alpha chain that is developmentally regulated during skeletal myogenesis," (May 1992) <i>J. Cell. Biol.</i> 117 (3):643-657
int	C54	Stedman, H.H., "Molecular approaches to therapy for Duchenne and limb-girdle muscular dystrophy," (2001) <i>Current Opinion in Molecular Therapeutics</i> 3 (4):350-356
int	C55	Tinsley, J.M. et al., "Amelioration of the dystrophin phenotype of <i>mdx</i> mice using a truncated utrophin transgene," (1996) <i>Nature</i> 384 :349-353
int	C56	Turner, P.R. et al., "Increased protein degradation results from elevated free calcium levels found in muscle from <i>mdx</i> mice," (1988) <i>Nature</i> 335 :735-738
int	C57	Vachon, P.H. et al., "Integrins (α 7 β 1) in muscle function and survival," (Oct. 1997) <i>J. Clin. Invest.</i> 100 (7):1870-1881
int	C58	von der Mark, H.J. et al., "Skeletal myoblasts utilize a novel β 1-series integrin and not α 6 β 1 for binding to the E8 and T8 fragments of laminin," (1991) <i>J. Biol. Chem.</i> 266 :23593-23601
int	C59	Wang, B. et al., "Adeno-associated virus vector carrying human minidystrophin genes effectively ameliorates muscular dystrophy in <i>mdx</i> mouse model," (Dec. 2000) <i>Proc. Natl. Acad. Sci. USA</i> 97 (25):13714-13719
int	C60	Werner, A. et al., "Deletion of α 7-integrin subunit leads to muscular dystrophy and late disappearance of postsynaptic folds in tonic muscle," (October 1999) <i>Soc. Neuroscience</i> 25 (1-2):2010 [Abstract]
int	C61	Xiao et al., "Adeno-associated virus as a vector for liver-directed gene therapy," (1998) <i>J. Virol.</i> 72 (12):10222-10226

EXAMINER <i>Michael Handford</i>	DATE CONSIDERED <i>6/19/03</i>
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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